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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,505	01/11/2006	Preben Lexow	30986/41550	4123
4743	7590	08/07/2009	EXAMINER	
MARSHALL, GERSTEIN & BORUN LLP			STAPLES, MARK	
233 SOUTH WACKER DRIVE				
6300 SEARS TOWER			ART UNIT	PAPER NUMBER
CHICAGO, IL 60606-6357			1637	
			MAIL DATE	DELIVERY MODE
			08/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/553,505	LEXOW ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	MARK STAPLES	1637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 21 May 2009.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-4, 7-12, 17 and 18 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-4, 7-12, 17 and 18 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input checked="" type="checkbox"/> Other: <u>Notice to Comply &amp; Defective Sequence Listing</u> .



**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/21/2009 has been entered.

2. Applicant's amendment of claims 1, 4, 8, and 18 in the paper filed on 04/22/2009 is acknowledged.

Claims 1-4, 7-12, 17, and 18 are pending and at issue.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Priority**

3. Receipt is acknowledged of the paper which is a certified copy of patent application GB0308852.3 submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

**Objections and Rejections that are Withdrawn**

4. The objection to claim 8 is withdrawn in light of Applicant's amendment of the claim.
5. The objection to claim 17 is withdrawn in light of Applicant's amendment of the claim.

***Claim Rejections Withdrawn- 35 USC § 112 Second Paragraph***

6. The rejection of claim 4 under 35 U.S.C. 112, second paragraph for reciting the limitation "same type" in line 2 is withdrawn, as Applicant has deleted this phrase through amendment.
7. The rejection of claim 17 under 35 U.S.C. 112, second paragraph for reciting the limitation "different type" in line 2 is withdrawn, as Applicant has deleted this phrase through amendment.
8. The rejection of claims 1 and 18 under 35 U.S.C. 112, second paragraph, as being indefinite for reciting "one of which" is withdrawn, as Applicant has overcome this rejection through amendment.

**Rejections that are Maintained**

***Claim Rejections Maintained - 35 USC § 103***

9. The rejection of claims 1-4, 7, 9-12, 17, and 18 under 35 U.S.C. 103(a) as being unpatentable over by Rosenthal et al. (1993), as evidenced by Bowden et al. (2000,),

Jones et al. (2000), and Skoinick et al. (1996) is maintained. Applicant's arguments with respect have been considered but are not persuasive.

Contrary to Applicant's argument, Rosenthal et al. teach the Sanger method of terminating/stopping sequencing of a polynucleotide by incorporation of any single base of A, C, G, or T in a dideoxy nucleoside triphosphate (ddNTPs) any one of which can be a stop signal (see p. 2 lines 3-15). And this is not a teaching away but a teaching towards the claimed limitation. Additionally, Jones et al. teach this well known Sanger method of terminating/stopping polynucleotide extension (see p. 3 lines 5-12). Skoinick et al. also teach that a target polynucleotide can be converted into a polynucleotide by sequencing methods (see p. 13 lines 23-27). Thus each of Rosenthal et al. and Jones et al. alone and all three cited teachings in combination teach the argued limitation and the claimed invention would have been obvious to one of ordinary skill in the art at the time of the claimed invention.

Applicant's argument is accepted that the teaching of Skoinick et al. for terminating a polypeptide sequence by a stop codon is not germane to the instant claims for terminating a polynucleotide sequence. However, Skoinick et al. do teach polynucleotide termination as well as given above, thus the argument is insufficient to overcome the rejection and the rejection is maintained.

Although not argued, it is noted in regards to amended claims 4 and 17 that Skoinick et al. teach polynucleotide units which are codons, which may be "TAG" or "GAG" (and where "GAG" comprises two of the same bases separated by a different base, see Table 12 on p. 49). It also noted that these codons or their complements in a

target polynucleotide also can be converted into a polynucleotide in extension reactions which include polynucleotide sequencing reactions (see p. 13 lines 23-27) and as taught in combination with Rosenthal et al. and Jones et al. as given above.

10. The rejection of claim 8 under 35 U.S.C. 103(a) as being unpatentable over Rosenthal et al., Bowden et al., Jones et al., and Skoinick et al. as applied to claims 1 and 7, and further in view of Rusinova et al. (2000, previously cited) is maintained.

Applicant's arguments are not persuasive.

Applicant argues that as the rejection over Rosenthal et al., Bowden et al., Jones et al., and Skoinick et al. should be withdrawn, that this rejection should also be withdrawn. However, as the rejection over Rosenthal et al., Bowden et al., Jones et al., and Skoinick et al. is maintained, this rejection is also maintained.

**New**

***Sequence Rules Compliance***

11. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 C.F.R. § 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 C.F.R. §§ 1.821-1.825 for the reason(s) set forth on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures. Applicant must comply with the

requirements of the sequence rules (37 CFR 1.821 - 1.825) before the application can be examined under 35 U.S.C. §§ 131 and 132.

Applicant is given time of reply to this office action within which to comply with the sequence rules, 37 C.F.R. §§ 1.821-1.825. Failure to comply with these requirements will result in **abandonment** of the application under 37 C.F.R. § 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 C.F.R. § 1.136. In no case may an applicant extend the period for response beyond the six month statutory period. Direct the response to the undersigned. Applicant is requested to return a copy of the attached Notice to Comply with the response.

The Sequence Listing filed 09/23/2008 could not be accepted. SEQ ID NOS: 1-4 in the sequence listing are each identified as a "Synthetic peptide" but are not synthetic peptides and there are other errors. Appropriate correction is required per Notice to Comply and per Defective Sequence Listing. Applicant should provide a substitute sequence listing and a CRF that includes and properly identifies these sequences. If you need help, call the Patent Electronic Business Center at (866) 217-9197 (toll free).

***Oath/Declaration***

15. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

There is no signature and no date of signature for Inventor RAGNHILDSTVEIT.

Further notes regarding the Declaration:

It is noted that while the Declaration does not specifically claim priority to PCT/GB04/001665, priority to PCT/GB04/001665 is established in the Application Data Sheet filed on 10/14/2005. The specification of PCT/GB04/001665 was also filed on 10/14/2005. Additionally, priority to GB 0308852.3 is established in the Application Data Sheet filed on 10/14/2005 (and see above for acknowledged receipt of a certified copy).

**Conclusion**

16. No claim is allowed.
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Staples whose telephone number is (571) 272-9053. The examiner can normally be reached on Monday through Thursday, 9:00 a.m. to 6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (571) 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Staples/  
Examiner, Art Unit 1637  
August 4, 2009